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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,047	12/31/2001	Lee Friedman	36968/258392 (BS01155)	2287

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EXAMINER	
REILLY, SEAN M	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,047	FRIEDMAN, LEE	
	Examiner	Art Unit	
	Sean Reilly	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6,7,9-13,15-19,22-30,36,37,39-46 and 48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-7, 9-13, 15-19, 22-30, 36-37, 39-46, 48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to Applicant's amendment and request for reconsideration filed on 5/23/2005. Claims 6-7, 9-13, 15-19, 22-30, 36-37, 39-46, and 48 are presented for further examination. All remaining independent claims have been amended.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 43-46, and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Sahai et al. (U.S. Patent Number 6,594,699; hereinafter Sahai).

2. Regarding cliam 43, Sahai discloses a method executed by a distribution device of transmitting a set of parameters associated with a network segment to a centralized server that is upstream from the distribution device, comprising:

- receiving, at the distribution device (any router, switch, proxy or server device that sits between the client and central server which is needed for communication over the internet; Col 2, lines 46-50) a set of parameters representing the transmission characteristics (Col 4, lines 15-32) of the network segment (entered by the client and

passed upstream passing through a distribution device; Col 4, lines 9-11) wherein the set of parameters include a plurality of disparate routing parameters (e.g. QoS, parameters, see inter alia Columns 3 and 4) for determining an optimal path (path based on network traffic load and user preference, Col 4, lines 45-50) among a plurality of available paths along the network segment (Col 4, lines 45-50); and

- transmitting the set of parameters to the centralized server (Col 4, lines 9-11).

3. Regarding claim 44, Sahai discloses receiving, at the distribution device, data from the centralized server, wherein the data is adapted by the centralized server according to the set of parameters; and transmitting the adapted data along the network segment (stream sent in return of the user request; Col 5, lines 41-46).

4. Regarding claim 45, Sahai discloses transmitting the set of parameters occurs when there is a change in the set of parameters (automatically occurs since parameters are sent with each stream request and the parameters are updated anytime capabilities change Col 4, lines 1-2).

5. Regarding claim 46, Sahai discloses adapting the data comprises adjusting a packet size of the data according to bandwidth restrictions of the network segment (Col 4, line 15).

6. Regarding claim 48, Sahai discloses adapting the data further comprises replicating the data (inherent since the actual media content is never changed).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 6, 9-13, 15-19, 22-27, 29-30, 36, 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahai et al. (U.S. Patent Number 6,594,699; hereinafter Sahai) and Natarajan et al. (U.S. Patent Number 6,539,427; hereinafter Natarajan).

8. With regard to claims 6 and 36, Sahai disclosed a method executed by a distribution device of adapting data according to a set of parameters associated with a network segment that is downstream from the distribution device, comprising:

- receiving at the distribution device instructions (user sends client capabilities, preferences, and specifications Col 3, lines 10-12, Col 4, lines 9-11), wherein the instructions instruct the distribution device to adapt the data (see the various parameters in Columns 3 and 4);
- adapting the data to conform to the set of parameters associated with the network segment (adapting to the client capabilities and user specifications) (Col 5, lines 41-45), wherein the set of parameters include a plurality of disparate routing parameters (see inter alia QoS parameters, Columns 3 and 4) for determining an optimal path (path based on network traffic load and user preference, Col 4, lines 45-50) among a plurality of available paths along the network segment (Col 4, lines 45-50); and
- transmitting the adapted data along the network segment based on at least one of the plurality of disparate routing parameters (streaming the content) (Col 5, lines 41-45).

Sahai disclosed the invention substantially as claimed however, Sahai failed to specifically recite receiving the data from a sending device (i.e. Sahai failed to recite the data sending device is an intermediary network device that receives data from another source). In an

analogous networking art, Natarajan disclosed a plurality of networking devices (elements, Col 7, lines 21-30) which receive data from a sending source (any networking device upstream), convert the data to conform to a set of parameters associated with the network segment (operational parameters), and transmit the adapted data along the network segment (transmit data downstream) (Col 8, lines 9-29). Natarajan further disclosed that the configuration of such network devices ensures that various aspects of the network conform to desired performance criteria (Col 7, lines 17-20). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to extend the data adaptation system disclosed by Sahai to intermediate networking device as disclosed by Natarajan, in order to ensure each aspect of the network conforms to a desired performance (Natarajan Col 7, lines 17-20).

9. With regard to claims 13, Sahai disclosed a system for transmitting data from a central source to a plurality of receiving devices where at least two of the receiving devices are located on disparate segments of a communications network, comprising:

- a device (e.g. client) for distributing a plurality of sets of instructions, wherein the plurality of sets of instructions is for adapting the data according to a plurality of sets of transmission parameters (see Columns 3 and 4 capabilities and user specifications) associated with a plurality of disparate segments (user sends client capabilities, preferences, and specifications Col 3, lines 10-12, Col 4, lines 9-11), and
- a central server (Figure 1, Component 10), comprising:

- a receiver for receiving at least one of the sets of instructions from the network administration device (user sends client capabilities, preferences, and specifications Col 3, lines 10-12, Col 4, lines 9-11);
- a processor for implementing the set of instructions to adapt the data according to the transmission parameters associated with the segment (adapting to the client capabilities and user specifications) (Col 5, lines 41-45) ; and
- a transmitter for transmitting the adapted data to along one of the segments (Col 5, lines 41-45)
- a distribution device along each of the plurality of disparate segments (e.g. servers, routers, and other networking devices needed to pass data between the sever and client).

Sahai disclosed the invention substantially as claimed however, Sahai failed to disclose 1) the transmission parameters are associated with a *backbone* segment and that the server transmits data along the *backbone* segment and 2) that the distribution devices along each of the plurality of disparate segments are able to further adapt and transmit adapted data received from the central server according to at least one of the plurality of sets of transmission parameters associated with at least one of the plurality of disparate parameters.

In considering point #1, although Sahai disclosed the transmission parameters are associated with a plurality of disparate network segments, Sahai was silent as to whether one of the network segments was a backbone segment. Nevertheless the backbone of a network was widely known at the time of the invention. Further it was well known in the art at the time of the

invention to send data from a server to a distribution device over a *backbone* network segment since backbone network segments are much faster and therefore reduce transmission latency. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a network backbone segment between the server and client of Sahai, in order to reduce network latency.

With regard to point #2, as mapped above Sahai disclosed adapting data at a central server to conform to a set of transmission parameters associated with a plurality of disparate segments however, Sahai failed to specifically recite such data adaptation at intermediate distribution devices. In an analogous networking art, Natarajan disclosed a plurality of networking devices (elements, Col 7, lines 21-30) which receive data from a sending source (any networking device upstream), convert the data to conform to a set of parameters associated with the network segment (operational parameters), and transmit the adapted data along the network segment (transmit data downstream) (Col 8, lines 9-29). Natarajan further disclosed that the configuration of such network devices ensures that various aspects of the network conform to desired performance criteria (Col 7, lines 17-20). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to extend the data adaptation system disclosed by Sahai to all intermediate networking device as disclosed by Natarajan, in order to ensure each aspect of the network conforms to a desired performance (Natarajan Col 7, lines 17-20).

10. With regard to claims 9, 19, 30, and 39, Sahai disclosed adapting the data further comprises replicating the data (the content is never changed, just the form of the content changes).

11. With regard to claims 10 and 40, Natarajan disclosed transmitting the set of parameters from the distribution device to a network administrator (Col 27, lines 56-60).

12. Regarding claims 11, 23, and 41, Natarajan discloses transmitting the set of parameters occurs when the distribution means detects a change in the set of parameters (Col 7, lines 10-14).

13. Regarding claims 12, 24, and 42, Natarajan discloses transmitting the set of parameters occurs when the network administrator detects a change in the set of parameters (Col 28, lines 32-35).

14. With regard to claim 15, Sahai disclosed the set of transmission parameters specifies bandwidth restrictions of at least one network segment that is downstream from the central server (Col 3, lines 41-42).

15. With regard to claim 16, Sahai disclosed each of the plurality of sets of transmission parameters specifies maximum transmission unit (MTU) restrictions of at least one of plurality of disparate segments downstream from the central server (Col 4, line 15).

16. With regard to claim 17, Sahai disclosed the set of transmission parameters specifies protocol restrictions of at least one network segment that is downstream from the central server (Col 3, lines 43-49).

17. With regard to claim 18, Sahai disclosed the set of transmission parameters specifies routing restrictions (e.g. type of network) of at least one network segment that is downstream from the central server (Col 4, lines 45-50).

18. With regard to claim 22, Natarajan disclosed the transmitter in the distribution device is a means for transmitting the at least one of the plurality of sets of transmission parameters to the network device (Col 8, lines 30-32).

19. With regard to claims 25 and 26, Sahai disclosed the transmitter in the central server is a means for transmitting a request to receive instructions and data (server sends request) (Col 3, lines 15-20).

20. With regard to claim 27, Sahai disclosed the processor in the central server is a means for addressing the data (Col 5, lines 41-46).

21. With regard to claim 29, Sahai disclosed the processor in the distribution device implements each received set of instruction by routing the data according to routing restriction of the at least one of the plurality of segments (Col 5, lines 41-46).

22. Claims 7, 28, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahai et al. (U.S. Patent Number 6,594,699; hereinafter Sahai) and Natarajan et al. (U.S. Patent Number 6,539,427; hereinafter Natarajan) and further in view of Bahadiroglu (U.S. Patent Application Publication 2002/0186660; hereinafter Bahadiroglu).

23. With regard to claims 7, 28, and 37, Sahai disclosed adjusting packet size (see Col 4, line 15) however; neither Sahai nor Natarajan disclosed adjusting packet size according to bandwidth restrictions of the network segment. Nevertheless it was widely known at the time of the invention to adjust packet size according to *bandwidth restrictions* of the network segment, as evidenced by Bahadiroglu. In an analogous art, Bahadiroglu disclosed adjusting packet size according to bandwidth restrictions of the network segment (latency, jitter and traffic conditions) (¶ 70). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the packet sizing functionality disclosed by Bahadiroglu, within the

combined Sahai and Natarajan system, in order to ensure the available bandwidth is maximized (Bahadiroglu ¶70).

Response to Arguments

24. In response to Applicant's request for reconsideration filed on 5/23/2005, the following factual arguments are noted which are still relevant in view of the new grounds of rejection set forth:

a. Sahai failed to disclose determining an optimal path among a plurality of available paths along a network segment, and transmitting the adapted data along the network segment based on at least one of the plurality of disparate routing parameters.

In considering (a), Examiner respectfully disagrees with Applicant's argument. Sahai clearly disclosed determining an optimal route based in part on user preference and the network traffic load (Col 4, lines 45-50).

Conclusion

25. The prior art made of record, in PTO-892 form, and not relied upon is considered pertinent to applicant's disclosure.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Reilly whose telephone number is 571-272-4228. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9/13/05

KRISNA LIM
PRIMARY EXAMINER